

RGH Pharmacy E-Bulletin

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A joint initiative of the Patient Services Section and the Drug and Therapeutics Information Service of the Pharmacy Department, Repatriation General Hospital, Daw Park, South Australia. The RGH Pharmacy E-Bulletin is distributed in electronic format on a weekly basis, and aims to present concise, factual information on issues of current interest in therapeutics, drug safety and cost-effective use of medications.

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Alcohol and medications

Alcohol has the potential to interact with many medications, but the clinical significance of these interactions is often queried. Pharmacokinetic interactions between alcohol and drugs occur mainly in the liver where both are metabolised. Pharmacodynamic interactions generally result in enhanced effects in the central nervous system (CNS) including sedation and decreased motor skills. Assessment of alcohol-drug interactions is confounded because acute alcohol intake may inhibit drug metabolism whereas chronic alcohol intake can induce enzymes. Studies often focus on the effects of chronic heavy drinking with little evidence for advice around concomitant moderate alcohol consumption.

The table below highlights some key interactions where avoiding alcohol may be prudent.

<i>Drugs</i>	<i>Type of interaction</i>
Metronidazole, tinadazole, disulfiram, griseofulvin	Inhibition of aldehyde dehydrogenase causing unpleasant symptoms such as flushing, headache, palpitations, tachycardia, hypotension, nausea. Avoid alcohol for at least 24 hours after last dose.
Hypnotics: benzodiazepines, zolpidem, zopiclone, chloral hydrate	Enhanced CNS effects
Kapanol® - sustained release morphine	“Dose dumping” due to instability of sustained release formulation in the presence of alcohol
Baclofen	Narcotic-like reaction causing weakness, dizziness, agitation, euphoria and enhanced CNS effects
MAOIs	Avoid drinks containing tyramine (some beer and red wine) as these may result in postural hypotension and/or hypertensive crisis and enhanced CNS effects
Metformin	Contraindicated in alcohol abuse due to increased risk of lactic acidosis

Obviously, increased risk of sedation and possibly also other CNS suppression effects is expected with a variety of medications if taken concurrently with alcohol: these include antidepressants, antipsychotics, antihistamines, antiepileptics, opioids and other sedatives. Patients need to be counselled regarding this and should be warned about the risk of decreased motor skills. Caution is also advisable with vasodilators, which if taken with alcohol may lead to increased orthostatic hypotension. Increased risk of gastric irritation may occur with NSAIDs and prednisolone, and liver damage with methotrexate and isoniazid. Drugs increasing gastric emptying such as erythromycin and H₂ antagonists, result in increased alcohol absorption in the small intestine with increased blood alcohol levels.

Alcohol consumption has variable effects on drugs such as phenytoin and oral anticoagulants. Chronic use can result in significantly reduced drug concentrations. Conversely binge drinking inhibits warfarin metabolism resulting in increased risk of bleeding. Consumption of 1-2 standard drinks per day is generally considered to be safe.

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FOR FURTHER INFORMATION – CONTACT THE PHARMACY DEPARTMENT ON 82751763 or email: chris.alderman@rgh.sa.gov.au
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